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ABSTRACT

Two bibliographies list over 120 books, journal articles, reference materials, statistical sources, organizations, and media relevant to women's roles in science and in information technology. The first bibliography emphasizes books, most of which were published in the late 1970's and the 1980's, that present a feminist critique of scientific theory and practice. Some recent biographies and other works about women scientists are also included. Very few journal articles are listed. Also listed in this first bibliography are resources for further research, including bibliographies on women and science, review essays, indexes to articles in related fields, biographical sources, statistical sources, and organizations. The second bibliography annotates books and pamphlets published in the 1980's that deal with women and microelectronics manufacturing and applications. This second bibliography concludes with listings of periodicals, nonprint media, and resource organizations. (RM)

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WOMEN AND SCIENCE: ISSUES AND RESOURCES

[and]

WOMEN AND INFORMATION TECHNOLOGY: A SELECTIVE BIBLIOGRAPHY

January 1985

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WOMEN AND SCIENCE: ISSUES AND RESOURCES

Part I: A Selective Reading List

This bibliography emphasizes books that present a feminist critique of scientific theory and practice. Some recent biographies and other works about women scientists are also included. Very few journal articles are listed. For further guidance, consult the sources highlighted in Part II.

Alic, Margaret. Hypatia's Heritage: The History of Women's Science. London: Pandora Press, 1984.

Alice Through the Microscope: The Power of Science Over Women's Lives. By the Brighton Women and Science Group. London: Virago, 1980.

Arditti, Rita, Pat Brennan, and Steve Cavrak, eds. Science and Liberation. Boston: South End Press, 1980.

Arnold, Lois Barber. Four Lives in Science: Women's Education in the Nineteenth Century. New York: Schocken Books, 1984. (Biographies of Maria Martin Bachman, Almira Hart Lincoln Phelps, Louisa C. Allen Gregory, and Florence Bascom.)

Baldwin, Richard S. The Fungus Fighters: Two Women Scientists and Their Discovery. Ithaca: Cornell University Press, 1981. (Biographies of Elizabeth Hazen and Rachel Brown.)

Berryman, Sue E. Who Will Do Science? New York: Rockefeller Foundation, 1983.

Biology as Destiny: Scientific Fact or Social Bias? Cambridge, MA: Science for the People, 1984.

Bleier, Ruth. Science and Gender: A Critique of Biology and Its Theories on Women. New York: Pergamon, 1984.

Briscoe, Anne M., and Sheila M. Pfafflin. "Expanding the Role of Women in the Sciences." Annals of the New York Academy of Sciences 323 (1979).

Climbing the Ladder: An Update on the Status of Doctoral Women Scientists and Engineers. By the Committee on the Education and Employment of Women in Science and Engineering, Office of Scientific and Engineering Personnel, National Research Council. Washington: National Academy Press, 1983.

Cole, Jonathan R. Fair Science: Women in the Scientific Community. New York: Free Press, 1979.

Dagg, Anne Innis. Harem and Other Horrors: Sexual Bias in Behavioural Biology. Waterloo, Ontario: Otter Press, 1983.

Easlea, Brian. Fathering the Unthinkable: Masculinity, Scientists and the Nuclear Arms Race. London: Pluto Press, 1983.

Easlea, Brian. Science and Sexual Oppression: Patriarchy's Confrontation With Woman and Nature. London: Weidenfeld & Nicolson, 1981.

Fausto-Sterling, Ann. "Women and Science." Women's Studies International Quarterly 4 (1981): 41-50.

Fee, Elizabeth. "Women's Nature and Scientific Objectivity." In Woman's Nature: Rationalizations of Inequality, pp. 9-28. Ed. by Marian Lowe and Ruth Hubbard. New York: Pergamon, 1983.

Fox, Lynn H., et al. Women and the Mathematical Mystique. Baltimore: Johns Hopkins University Press, 1980.

Goodfield, June. An Imagined World: A Story of Scientific Discovery. New York: Harper & Row, 1981. (Biography of Anna Brits.)

Gornick, Vivian. Women in Science: Portraits From a World in Transition. New York: Simon & Schuster, 1983.

Harding, Sandra, and Merrill B. Hintikka, eds. Discovering Reality: Feminist Perspectives on Epistemology, Metaphysics, Methodology, and Philosophy of Science. Dordrecht, Holland: D. Reidel, 1983.

Haas, Violet B., and Carolyn C. Perrucci, eds. Women in Scientific and Engineering Professions. Ann Arbor: University of Michigan Press, 1984.

Hrdy, Sarah Blaffer. The Woman That Never Evolved. Cambridge: Harvard University Press, 1981.

Hubbard, Ruth. "The Emperor Doesn't Wear Any Clothes: The Impact of Feminism on Biology." In Men's Studies Modified, pp. 213-235. Ed. by Dale Spender. New York: Pergamon, 1981.

Hubbard, Ruth, and Marian Lowe, eds. Genes and Gender II: Pitfalls in Research on Sex and Gender. New York: Gordian Press, 1978.

Hubbard, Ruth, Mary Sue Henifin, and Barbara Fried, eds. Biological Woman - The Convenient Myth. Cambridge: Schenkman, 1982.

Hubbard, Ruth, Mary Sue Henifin, and Barbara Fried, eds. Women Look at Biology Looking at Women. Cambridge: Schenkman, 1979.

Humphreys, Sheila, ed. Women and Minorities in Science: Strategies for Increasing Participation. Boulder: Westview, 1982. (AAAS Selected Symposium no. 66.)

Keller, Evelyn Fox. A Feeling for The Organism: The Life and Work of Barbara McClintock. San Francisco: W.H. Freeman, 1983.

Keller, Evelyn Fox. "Feminism and Science." Signs 7 (1982): 589-602.

Keller, Evelyn Fox. Reflections on Science and Gender. New Haven: Yale University Press, 1985.

Lewontin, R. C., Steven Rose, and Leon J. Kamin. Not in Our Genes: Biology, Ideology, and Human Nature. New York: Pantheon, 1984.

Lowe, Marian. "The Dialectic of Biology and Culture." In Woman's Nature: Rationalizations of Inequality, pp. 39-62. Ed. by Marian Lowe and Ruth Hubbard. New York: Pergamon, 1983.

Malcolm, Shirley Mahaley, Paula Quick Hall, and Janet Welsch Brown. The Double Bind: The Price of Being a Minority Woman in Science. Washington: American Association for the Advancement of Science, 1976. (AAAS Report no. 76-R-3.)

Merchant, Carolyn. The Death of Nature: Women, Ecology and the Scientific Revolution. New York: Harper & Row, 1980.

Messing, Karen. "The Scientific Mystique: Can a White Lab Coat Guarantee Purity in the Search for Knowledge About the Nature of Women?" In Woman's Nature: Rationalizations of Inequality, pp. 75-88. Ed. by Marian Lowe and Ruth Hubbard. New York: Pergamon, 1983.

Newman, Louise Michele, ed. Men's Ideas/Women's Realities: Popular Science, 1870-1915. New York: Pergamon, 1984.

Osen, Lynne M. Women in Mathematics. Cambridge: M.I.T. Press, 1974.

Overfield, Kathy. "Dirty Fingers, Grime, and Slag Heaps: Purity and the Scientific Ethic." In Men's Studies Modified, pp. 237-248. Ed. by Dale Spender. New York: Pergamon, 1981.

Ramaley, Judith A., ed. Covert Discrimination and Women in the Sciences. Boulder: Westview, 1978. (AAAS Selected Symposium no. 14.)

Reed, Evelyn. Sexism and Science. New York: Pathfinder Press, 1978.

Richer, Derek, ed. Women Scientists: The Road to Liberation. London: Macmillan, 1982.

Rose, Hilary. "Hand, Brain, and Heart: A Feminist Epistemology for the Natural Sciences." Signs 9 (Autumn 1983): 73-90.

Rosser, Sue V. "A Call for Feminist Science." International Journal of Women's Studies 7 (January/February 1984): 3-9.

Rossiter, Margaret W. Women Scientists in America: Struggles and Strategies to 1940. Baltimore: Johns Hopkins University Press, 1982.

Rothschild, Joan, ed. Machina Ex Dea: Feminist Perspectives on Technology. New York: Pergamon, 1983.

Ruse, Michael. Is Science Sexist? And Other Problems in the Biomedical Sciences. Dordrecht, Holland: D. Reidel, 1981.

Sayers, Janet. Biological Politics: Feminist and Anti-Feminist Perspectives. New York: Methuen, 1982.

Sayre, Anne. Rosalind Franklin and DNA: A Vivid View of What It Is Like To Be a Gifted Woman in an Especially Male Profession. New York: Norton, 1975.

"Science and Technology" (thematic issue). Canadian Woman Studies/les Cahiers de la Femme 5 (Summer 1984).

Science, Sex and Society. Washington: Women's Educational Equity Act Program, U.S. Dept. of Health, Education and Welfare, 1979.

Shaw, Evelyn, and Joan Darling. Female Strategies. New York: Walker, 1984.

Sloane, Ethel. Biology of Women. New York: Wiley, 1980.

Standish, Leanna. "Women, Work, and the Scientific Enterprise." Science for the People 14 (September/October 1982): 12-19.

Stehelin, Liliane. "Science, Women and Ideology." In The Radicalisation of Science: Ideology Of/In the Natural Sciences, pp. 76-89. Ed. by Hilary Rose and Steven Rose. London: Macmillan, 1976.

Tobach, Ethel, and Betty Rosoff. Genes and Gender. New York: Gordian Press, 1978.

Warner, Deborah Jean. Graceanna Lewis, Scientist and Humanitarian. Washington: Smithsonian Institution Press, 1979.

Watts, Meredith W. Biopolitics and Gender. New York: Haworth Press, 1984. (Also published as Women & Politics 3, no. 2/3, Summer/Fall 1983.)

"Women and Science" (thematic issue). International Journal of Women's Studies 4 (Sept/Oct 1981).

"Women in Science: A Man's World" (thematic issue). Impact of Science on Society 25 (1975).

"Women, Science, and Society" (thematic issue). Signs 4 (1978).

"Women, Technology and Innovation" (thematic issue). Women's Studies International Quarterly 4 (1981).

Yee, Carole Zonis. "Do Women in Science and Technology Need the Women's Movement?" Frontiers 2 (Fall 1977): 125-128.

Zimmerman, Jan, ed. The Technological Woman: Interfacing With Tomorrow. New York: Praeger, 1983.

Part II: Resources for Further Research

This section highlights materials featured in the videotape, Women and Science: Issues and Resources. Ask a librarian for additional help in locating sources or formulating a research strategy.

IN THE CATALOG: WOMEN IN SCIENCE

WOMEN SCIENTISTS
WOMEN ENGINEERS, etc.

WOMEN -- PHYSIOLOGY

SCIENCE -- SOCIAL ASPECTS
TECHNOLOGY -- SOCIAL ASPECTS

The names of individual women scientists.

BIBLIOGRAPHIES ON WOMEN AND SCIENCE

Chinn, Phyllis Zweig. Women in Science and Mathematics: Bibliography. Arcata, CA: Humboldt State University, 1980.

Hubbard, Ruth, Mary Sue Henifin, and Barbara Fried, eds. Biological woman - The Convenient Myth. Cambridge, MA: Schenkman, 1982. (Contains an extensive bibliography pp. 289-376.)

Women in Medicine: A Bibliography of the Literature on Women Physicians. By Sandra L. Chaff et al. Metuchen, NJ: Scarecrow, 1977.

REVIEW ESSAYS

Aldrich, Michele L. "Women in Science." Signs 4 (Autumn 1978): 126-135.

INDEXES TO ARTICLES IN WOMEN'S STUDIES

Studies on Women Abstracts. 1983 to present. 4/year.

Women Studies Abstracts. 1972 to present. 4/year.

INDEXES TO ARTICLES IN SCIENCE

Applied Science and Technology Index. 1913 to present. 11/year.

Biological Abstracts. 1926 to present. 24/year.

Biological and Agricultural Index. 1919 to present. 11/year.

General Science Index. 1978 to present. 10/year.

Index Medicus. 1879 to present. 12/year.

Science Citation Index. 1961 to present. 6/year.

INDEXES TO ARTICLES IN RELATED FIELDS

Business Periodicals Index. 1958 to present. 11/year.

Education Index. 1929 to present. 10/year.

Readers' Guide to Periodical Literature. 1890 to present. 18/year.

BIOGRAPHICAL SOURCES

American Men and Women of Science. 15th ed. New York: Bowker, 1982.

Notable American Women, 1607-1950. Ed. by Edward T. James et al. Cambridge, MA: Belknap Press of Harvard University Press, 1971. 3 vols.

Notable American Women: The Modern Period. Ed. by Barbara Sicherman. Cambridge, MA: Belknap Press of Harvard University Press, 1980.

STATISTICAL SOURCES

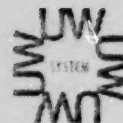
American Statistics Index. 1973 to present. 12/year.

National Science Foundation. Women and Minorities in Science and Engineering. Washington: National Science Foundation, 1982 to present. Biennial.

ORGANIZATIONS

Associations and Committees of or for Women in Science, Engineering, Mathematics, and Medicine. Washington: Office of Opportunities in Science, American Association for the Advancement of Science, May 1984. (Single copies free from: Office of Opportunities in Science, AAAS, 1776 Massachusetts Ave., NW, Suite 620 B, Washington, DC 20036.)

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WOMEN AND INFORMATION TECHNOLOGY:
A SELECTIVE BIBLIOGRAPHY.

The first part of this bibliography lists books and pamphlets, grouped in three topical categories: microelectronics manufacturing and women's work; microelectronics applications and women's work; and the promise of microelectronics. These are followed by separate sections listing special issues of periodicals, nonprint media, and resource organizations.

I. Microelectronics Manufacturing and Women's Work

Christian Conference of Asia-Urban Rural Mission. THE PLIGHT OF ASIAN WORKERS IN ELECTRONICS. Hong Kong: Christian Conference of Asia-Urban Rural Mission, 1982. (Available from CCA-URM Office, 57 Peking Rd., 5/F, Kowloon, Hong Kong)

A cartoon-format booklet describing the plight of some 600,000 workers in Asian electronics assembly plants. Discusses health hazards of the work, including extremes of heat and cold and a variety of toxic substances; examines wage rates and relative buying power, "incentive" programs and compulsory overtime; details organizing strategies for workers. Few sources cited.

Christian Conference of Asia-Urban Rural Mission. STRUGGLING TO SURVIVE. Hong Kong: Christian Conference of Asia-Urban Rural Mission, 1981.

This largely descriptive book looks at the conditions under which women work in Thailand, Malaysia, the Philippines, Sri Lanka and Hong Kong. The details of extended overtime work, occupational diseases, high quotas and low wages are disturbing. While some statistics are given, documentation is generally scant.

Dauber, Roslyn, and Cain, Melinda L., eds. WOMEN AND TECHNOLOGICAL CHANGE IN DEVELOPING COUNTRIES. (AAAS Selected Symposium, 53) Boulder, CO: Westview Press, for the American Association for the Advancement of Science, 1981.

Chapters by scholars in the area of women and development offer useful overviews of technology and the development process, as well as specific studies of the effects of technology in developing nations. "Women's Work in Multinational Electronics Factories," by Linda Y.C. Lim, focuses on Malaysia and Singapore, but draws parallels to similar conditions in Taiwan, Mexico, Brazil, El Salvador, and other countries. Most chapters are carefully documented. The above-noted chapter is an exception, but Lim's original paper is available as listed below. An annotated bibliography on women and appropriate technology is included.

D'Onofrio-Flores, Pamela, and Pfafflin, Sheila, eds. SCIENTIFIC-TECHNOLOGICAL CHANGE AND THE ROLE OF WOMEN IN DEVELOPMENT. Boulder, CO: Westview Press, for the United Nations Institute for Training and Research, 1982.

Included in this volume's general discussion of the effects of technology on women's work is a look at several studies on automation of office work and its effects on numbers and level of jobs for women. One chapter looks specifically at "off-shore sourcing" plants for electronics parts in Mexico. These "maquiladora" plants are concentrated in border towns and pay as little as \$3 per day, relying mostly on unskilled women for employees. Index included.

Fernandez-Kelly, Maria Patricia. FOR WE ARE SOLD, I AND MY PEOPLE: WOMEN AND INDUSTRY IN MEXICO'S FRONTIER. Albany, NY: State University of New York Press, 1983.

In preparation for this study, Fernandez-Kelly worked in a border manufacturing plant in addition to gathering survey information and doing extensive interviewing. Examines the history of border industrialization; demographic characteristics of the women workers; how the offshore production centers affect local economies and culture; the work situation inside the "maquiladoras"; and how the work affects family organization. Substantial bibliography.

Fuentes, Annette, and Ehrenreich, Barbara. WOMEN IN THE GLOBAL FACTORY. New York: Institute for New Communications, 1983. (Available from INC, 853 Broadway, Rm. 905, New York, NY 10003)

Looks at the lives of women in assembly-line manufacturing, from Southeast Asia to Mexico and the Silicon Valley of California. This 64-page pamphlet was not examined by the compiler.

Lim, Linda Y.C. "Women Workers in Multinational Corporations: The Case of the Electronics Industry in Malaysia and Singapore." (Available from Michigan Occasional Papers in Women's Studies, 1058 L.S.A. Building, Ann Arbor, MI 48109.)

Not examined by compiler.

II. Microelectronics Applications and Women's Work

Cockburn, Cynthia. BROTHERS: MALE DOMINANCE AND TECHNOLOGICAL CHANGE. London: Pluto Press, 1983. (Available from Pluto Press, The Works, 105a Torriano Ave., London, NW5)

An examination of the computerization of the printing industry in Great Britain, its effects on male and female printers and their response to the transformation. Unavailable for examination by compiler.

Craig, Marianne. OFFICE WORKERS' SURVIVAL HANDBOOK: A GUIDE TO FIGHTING HEALTH HAZARDS IN THE OFFICE. London: BSSRS Publications, Ltd., 1981. (Available from Trade Union Bookservice, 265 Seven Sisters Road, Finsbury Park, London N4 2DE)

A general work examining the hazards of noise, lighting, stress, toxic gasses, fire, etc. in the office. Section 4 concentrates on "Microelectronics: What Computers are Doing to Office Work and Office Workers." Discussion centers on the health hazards most frequently associated with VDT work, particularly eyestrain. Guidelines for use of new technology in offices are proposed for negotiation of work conditions with management.

Ford, John, and Miller, Alan V., compilers. WOMEN, MICROELECTRONICS, AND EMPLOYMENT: A SELECTED BIBLIOGRAPHY. Toronto: Ontario Ministry of Labour Library, 1983. (Available from Communications Division #1902, Ontario Ministry of Labour, 2 Bloor St. W., Toronto, Ontario M4C 3C3)

An unannotated but extensive 16-page bibliography of monographs and articles. Predominantly Canadian sources, but some international citations as well.

Friedrichs, Gunter, and Schaff, Adam, eds. MICROELECTRONICS AND SOCIETY: FOR BETTER OR WORSE: A REPORT TO THE CLUB OF ROME. New York: Pergamon Press, 1982.

A useful general view of microelectronics and their effect on all parts of society. Includes an exploration of how the technology works and in what applications, an extensive look at effects on the workplace, and a specific study of information technology. This is a thoughtful work; though not specifically about women and the new technology, it covers many areas directly affecting women, and considers many of the issues being examined carefully by women.

International Labor Office. NEW TECHNOLOGIES: THEIR IMPACT ON EMPLOYMENT AND THE WORKING ENVIRONMENT. Geneva: International Labor Organization, 1982.

Though not specifically focused on women's issues, this compilation of articles previously published in the ILO Social and Labor Bulletin covers much of the territory related to the impact of information technology on women's work. Most selections are brief, but carefully documented from newspaper and magazine articles and organizational reports from around the world. Articles are grouped under such topic areas as "trade union viewpoint," "labor relations and collective agreements," "employment, training and qualifications," and "work environment."

Makower, Joel. OFFICE HAZARDS: HOW YOUR JOB CAN MAKE YOU SICK. Washington, D.C.: Tilden Press, 1981. (Available from Tilden Press, 1737 DeSales St. NW, Washington, D.C. 20036)

A chapter on VDTs (called "Terminal Illnesses") focusses mostly on the stress of machine-centered work and on the eye problems associated with VDT work. Radiation and the stress of machine-paced work are discussed in additional chapters. Appendices include an office health and safety questionnaire and a listing of organizations concerned with office health/safety issues. Extensive chapter footnotes.

Menzies, Heather. COMPUTERS ON THE JOB: SURVIVING CANADA'S MICROCOMPUTER REVOLUTION. Toronto: James Lorimer & Co., 1982.

The author has done considerable research on women and the new technology (see her Women and the Chip below). Therefore, while this work is not focussed on women, its perspective on the effects of computers on individuals' work and lives is attentive to the concerns of a predominantly female clerical force. Reports on changes in corporate offices, the service industry, and blue-collar work resulting from the introduction of computers, and examines numerous studies. A good list of sources and suggested reading is provided.

Menzies, Heather. WOMEN AND THE CHIP: CASE STUDIES OF THE EFFECTS OF INFORMATICS ON EMPLOYMENT IN CANADA. Montreal: The Institute for Research on Public Policy, 1981. (Available from IRPP/L'Institut de Recherches Politiques, 2149 Mackay St., Montreal, Quebec H3G 2J2)

This report begins with an overview of women's participation in the workforce and of the automation of information-handling that is occurring so rapidly in offices. It goes on to detail studies of four institutions: corporations, insurance companies, banks, and supermarkets. The author draws conclusions about information technology's impact on productivity, unemployment levels, job mobility, and quality of life, and offers recommendations for dealing with the problems resulting from rapid automation of clerical office work. Well documented.

National Safety Council. VIDEO DISPLAY TERMINALS: THE HUMAN FACTOR: REFERENCE HANDBOOK. Chicago: The Council, 1983. (Available from 444 N. Michigan Ave., Chicago, IL 60611)

A 58-page pamphlet with bibliography. Not seen by the compiler.

Newspaper Guild. HUMANIZING THE VDT WORKPLACE: A HEALTH MANUAL FOR LOCAL OFFICERS AND STEWARDS. Washington, D.C.: The Newspaper Guild; International Typographical Union, 1981. (Available from The Newspaper Guild, 1125 15th St. N.W., Washington, D.C. 20005)

This 44-page booklet explores the problems associated with prolonged use of a video display terminal and suggests more healthful workspace design, from careful selection of VDTs to proper lighting and flexible seating.

9 to 5/National Association of Working Women. THE HUMAN FACTOR: 9 TO 5'S CONSUMER GUIDE TO WORD PROCESSORS. Cleveland, OH: 9 to 5/National Association of Working Women, 1982. (Available from 9 to 5/NAWW, 1224 Huron Rd., Cleveland, OH 44115)

This pamphlet provides a quick general discussion of ergonomic factors related to office automation; a brand-name analysis of different word processors as to ergonomic features, screen type, and construction; and recommendations to employers, manufacturers and public officials as to the introduction of automation into the work environment.

SPRU (Science Policy Research Unit) Women and Technology Studies.
MICROELECTRONICS AND WOMEN'S EMPLOYMENT IN BRITAIN. (SPRU occasional paper series no. 17) Brighton, England: University of Sussex, 1982.

A thoroughly-documented examination of the impact of microelectronics on a variety of work sectors in Great Britain, notably the service employment area (including offices, banks, retail outlets, and education institutions) but manufacturing as well. Concludes that "the vulnerability of many women's jobs to microelectronics is a function of the types of work women do, rather than the technology itself."

Stellman, Jeanne, and Henifin, Mary Sue. OFFICE WORK CAN BE DANGEROUS TO YOUR HEALTH: A HANDBOOK OF OFFICE HEALTH AND SAFETY HAZARDS AND WHAT YOU CAN DO ABOUT THEM. New York: Pantheon Books, 1983.

Includes a chapter specifically on video display terminals, with a table of VDT radiation levels for various makes and models, and a general discussion of workstation design, lighting, recommended screen characteristics, and ultrasound. Appendices offer an office health and safety survey; testimony on the effects of "new technology" on office work; and a directory of health/safety related organizations, both government and private.

Werneke, Diane. MICROELECTRONICS AND OFFICE JOBS: THE IMPACT OF THE CHIP ON WOMEN'S EMPLOYMENT. Geneva: International Labour Office, 1983.

Werneke briefly describes the new technology, from word processors to OCR (optical character recognition) equipment, then discusses the effects of the technology on employment, specifically on women who are concentrated in the "information handling" occupations. The remainder of the 102-page study pulls together the limited research available on the experiences of North American and European nations with employment and microtechnology, and concludes with policy suggestions for implementation of the technology in work settings. Good chapter notes.

Working Women. OFFICE WORK IN AMERICA. Cleveland, OH: Working Women, National Association of Office Workers, 1982. (Available from 9 to 5, 1224 Huron Rd., Cleveland, OH 44115)

This 13-page booklet examining the general plight of women in offices includes brief sections on "Health and Safety Hazards" and "Office Automation." Quick overviews, but good sources cited.

Working Women. RACE AGAINST TIME: AN ANALYSIS OF THE TRENDS IN OFFICE AUTOMATION AND THE IMPACT ON THE OFFICE WORKFORCE. Cleveland, OH: Working Women, National Association of Office Workers, 1980. (Available from 9 to 5, see entry above)

Reviews the idea of "rationalization" of work procedures in the office, the breaking down of jobs into discrete tasks which results in deskilling of office work. Explores the implications of this process for quality of work environment in regard to job availability, pay levels, supervision, health hazards. Cites many statistics and a number of studies.

Working Women Education Fund. WARNING: HEALTH HAZARDS FOR OFFICE WORKERS: AN OVERVIEW OF PROBLEMS AND SOLUTIONS IN OCCUPATIONAL HEALTH IN THE OFFICE. Working Women Education Fund, 1981. (Available from 1224 Huron Rd., Cleveland, OH 44115)

This well-documented look at actual and potential health hazards in office work examines VDTs in addition to general problems such as stress, air quality, and chemicals in the environment. Eyestrain, postural problems and muscle strains, potential low-level radiation hazards, and the stress of monotonous and closely-supervised work are discussed as significant problems associated with VDT work.

III. The Promise of Microelectronics

American Association of University Women. TAKING HOLD OF TECHNOLOGY: LEARN, ASSESS, ACT, TOPIC GUIDE FOR 1981-83. Washington, D.C.: AAUW, 1981. (Available from AAUW, 2401 Virginia Ave., N.W., Washington, D.C. 20037)

Written in the form of a flow-chart, this study guide discusses the characteristics of modern technology and how women can respond to changes it is bringing to the home, the workplace, and society. Pages 33 to 44 of the 88-page guide look specifically at basic communications and computer technology. Includes suggested activities for local AAUW chapters, study groups and conferences as well as resource suggestions.

Heller, Dorothy Kunkin, and Bower, June. COMPUTER CONFIDENCE: A WOMAN'S GUIDE. Washington, D.C.: Acropolis Books, 1983.

Of all the books on what computers are about, how they operate, and what their possibilities are, this one is unique in being addressed specifically to women. Reviews both some of the technical aspects of how a computer works and some of the career possibilities for women in computer-related jobs. Its approach may strike some as "hand-holding," and others may be disappointed by its scanty reference listings. Overall, however, this is a well-written popular book that should be encouraging to any woman trying to learn the basics about computers and related careers.

Simons, G. L. WOMEN IN COMPUTING. Manchester, England: National Computing Centre Ltd., 1981. (Available from NCC, Ltd., Oxford Rd. 1, Manchester, England)

This comprehensive look at women and information technology begins with a history of women in computing (including Ada Lovelace and Dr. Ruth Davis) and examination of employment discrimination against women at both clerical and management levels. The author then looks at changes in the office environment resulting from the deskilling of clerical work, and closes with an interesting discussion of the potential for freelance and homebased computer work for women, noting the successful, woman-owned F International Group among other such businesses. Includes extensive bibliography.

Zimmerman, Jan. THE TECHNOLOGICAL WOMAN: INTERFACING WITH TOMORROW. New York: Praeger, 1983.

A number of articles in this collection deal directly with the employment of women in microelectronics. The first section surveys assembly work on the Mexican border, then looks at automated writing of computer programs and its implications for women's use and control of technology. Another section examines office automation, and a final section includes a look at policy-making for the future, particularly as it affects technology/computer training for women both in school and outside.

Special Issues of Periodicals

IKON. "Women and the Computer: A Special Section." Second series, No.2 (Summer/Fall 1983).

Includes articles on artificial intelligence, the personal computer, information theory and computer technology, plus interviews with two computer repair women.

ISIS INTERNATIONAL BULLETIN. Special Issue: "Women and New Technology." No. 24 (September 1982).

Not examined by the compiler.

ISIS INTERNATIONAL BULLETIN. Special Issue: "International Women and New Technology Conference." No. 23 (September 1983).

Reports of plenary sessions and workshops from the first International Women and New Technology Conference held in Geneva, Switzerland during June, 1983. Articles discuss effects of new technology on patterns of work; "homework" schemes; health problems associated with electronics assembly work; how women can gain more control of microelectronics technology through education and organization.

SIGNS: JOURNAL OF WOMEN IN CULTURE AND SOCIETY. Special Issue: "Development and the Sexual Division of Labor." Vol.7 (Winter 1981).

Though many articles do not deal specifically with microelectronics, as a whole they provide excellent context for examining the role of third world women in the production end of the information processing industry. Specific articles include one on women's employment in runaway shops, another on the sexual division of labor in Singapore, both testaments to how exploitation of cheap female labor undergirds the microelectronics industry.

SOUTHEAST ASIA CHRONICLE and PACIFIC RESEARCH. Special Joint Issue: "Changing Role of S.E. Asian Women: The Global Assembly Line and the Social Manipulation of Women on the Job." SRC No. 66 (January-February 1979); PSC Vol.9, No. 5-6 (July-October 1978).

Examines the foreign-oriented industries of semiconductor manufacture and prostitution. Rachel Grossman's feature article details personnel management techniques used on the predominantly youngworkers, the production process itself, and includes discussion of health and safety issues. Interspersed are interviews with workers; wage comparisons; and illustrations from multinational employee relations programs.

WOMEN'S STUDIES INTERNATIONAL QUARTERLY. Special Issue: "Women, Technology and Innovation." Volume 4 (1981).

"Women and Microelectronics: The Case of Word Processors" examines the differences in microelectronics applications for men and women, noting that the impact on women needs to be examined with patriarchy and capitalism critically in mind. "Technology and the Future of Women: Haven't We Met Somewhere Before?" looks at how technology has often reinforced traditional economic and social roles.

Other Media

GOOD MONDAY MORNING. 16mm film, color, 30 min., 1982. Producer: Laura Sky. Distributor: Skyworks, P.O. Box 315, Franklin Lakes, NJ 07417, (201) 891-8240. Rent: \$50. Sale: \$500.

"Canadian women office workers talk about the effects of computerization on their worklives....powerful and moving...." (Catalyst Media Review, v.3, n.2, 1983) Not seen by compiler.

POWERSHARING: THE MICROCOMPUTER. Videotape, 50 min., 1983. Producer: Martha Stuart. Distributor: Martha Stuart Communications, Inc., P.O. Box 246B, Hillsdale, NY 12529, (518) 325-3900. Rent: VHS or Beta, \$45; 3/4" u-matic, \$55. Sale: VHS or Beta, \$195; 3/4" u-matic, \$225.

Barbara and John McAllen, computer professionals, talk about microcomputers, demystify the technology, demonstrate the possibilities of the computer. "For anyone who needs to understand the microcomputer-what it is and what it does." (Publisher's brochure) Not seen by compiler.

WOMEN ON THE GLOBAL ASSEMBLY LINE. Audiotape, 28 min., 1981. Producers: Maggie Geddes and Mary Sinclair. Distributor: Pacifica Radio, 5316 Venice Blvd., Los Angeles, CA 90019. Sale: \$11.

Explores why multinational corporations hire women for their factories in third world countries and what working conditions are like on the electronics assembly line. (Publisher's catalog) Not seen by compiler.

Miscellaneous Resources

Association for Women in Computing.

Contact: Virginia C. Walker, 2813 N. Kensington St., Arlington, VA 22207
(202) 252-2132.

National VDT Hotline (sponsored by 9 to 5/National Association of Working Women): 1-800-521-VDTS

Women in Electronics.

Contact: P.O. Box 4425, Santa Clara, CA 94054.

Women in Information Processing.

Contact: Judy Beckman, Lock Box 39176, Washington, D.C. 20016 (202) 328-6161.

Women's Computer Literacy Project.

Contact: Deborah Brecher, 1195 Valencia St., San Francisco, CA 94110.

Compiled by Linda Shult
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